

Substitute for form 1449A/PTO
(Modified)INFORMATION DISCLOSURE
STATEMENT BY APPLICANT

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Sheet

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of

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Complete if Known

Application Number	10/697,908
Filing Date	October 29, 2003
First Named Inventor	KAYYEM, Jon Faiz
Art Unit	1634
Examiner Name	LU, Frank Wei Min
Attorney Docket Number	A-67499-2 (463037-00292)

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Document Number Number-Kind Code ² (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
<i>m</i>	A1	4,964,972	10-23-1990	Sagiv et al.	
	A2	5,156,810	10-20-1992	Ribi	
	A3	5,238,808	08-24-1993	Bard et al.	
	A4	5,294,369	03-15-1994	Shigekawa et al.	
	A5	5,565,322	10-15-1996	Heller	
	A6	5,871,918	02-16-1999	Thorp et al.	
	A7	5,942,388	08-24-1999	Wilner et al.	
	A8	6,020,047	02-01-2000	Everhart	
	A9	6,066,448	05-23-2000	Wohlstadtter et al.	
	A10	6,090,545	07-18-2000	Wohlstadtter et al.	
	A11	6,127,127	10-03-2000	Eckhardt et al.,	
	A12	6,140,045	10-31-2000	Wohlstadtter et al.	
	A13	6,180,346	01-30-2001	Thorp et al.	
	A14	6,300,141	10-09-2001	Segal et al.	
	A15	6,306,584	10-23-2001	Bamdad	
	A16	6,403,367 B1	06-11-2002	Cheng et al.	
	A17	6,686,150 B1	02-03-2004	Blackburn et al.	
	A18	6,740,518 B1	05-24-2004	Duong et al.	
	A19	6,833,267 B1	12-21-2004	Kayyem	
	A20	2002/0006643 A1	01-17-2002	Kayyem et al.	
	A21	2002/0177135 A1	11-28-2002	Duong et al.	
	A22	2003/0003473 A1	01-02-2003	Kayyem et al.	
	A23	2003/0150723 A1	08-14-2003	Kayyem et al.	
	A24	2004/0053290 A1	03-14-2004	Terbrueggen et al.	

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Foreign Patent Document Country Code* Number* Kind Code* (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁴
<i>m</i>	B1	EP 0 142 301 A2	05-22-1985	Serono Diagnostics Limited		
	B2	EP 0 229 943 A2	07-29-1987	Molecular Biosystems, Inc.		
	B3	EP 0 339 821 A1	11-02-1989	United Kingdom Atomic Energy Authority		
	B4	EP 0 439 036 A2	07-31-1991	Hoffman La Roche		

Examiner
Signature*Frank Wei Min Lu*Date
Considered

3/30/05

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				Filing Date	October 29, 2003
				First Named Inventor	KAYYEM, Jon Faiz
				Art Unit	1634
				Examiner Name	LU, Frank Wei Min
Sheet	2	of	3	Attorney Docket Number	A-67499-2 (463037-00292)

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<i>u</i>	B5	EP 0 668 502 B2	08-23-1995	Yissum Research Development		
	B6	WO 96/06946 A1	03-07-1996	Igen, Inc.		
	B7	WO 98/31839 A2/A3	07-23-1998	Presidents & Fellows of Harvard College		
	B8	WO 01/42508 A2/A3	06-14-2001	Motorola, Inc.		



NON PATENT LITERATURE DOCUMENTS						
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.				T ⁵
<i>u</i>	C1	ANNE, A., et al., "Synthesis of First Ferrocene Labeled Dideoxynucleotide and It's Use for 3'- Redox End Labeling of 5'-Modified Single Stranded Oligonucleotides," <i>Bioconjug. Chem.</i> 12(3):396-405 (May. 2001).				
	C2	ARKIN, M., et al., "Rates of DNA-Mediated Electron Transfer Between Metallointercalators," <i>Science</i> 273(5274):475-480 (Jul. 1996).				
	C3	BAIN, W., et al., "Formation of monolayers by the coadsorption of thiols on gold: variation in the length of the alkyl chain," <i>J. Am. Chem. Soc.</i> 111(18):7164-7175 (Aug. 1989).				
	C4	DUAN, C., et al., "Separation-Free Sandwich Enzyme Immunoassays Using Microporous Gold Electrodes and Self-Assembled Monolayer/Immobilized Capture Antibodies," <i>Anal. Chem.</i> 66(9):1369-1377 (May. 1994).				
	C5	HALL, D., et al., "Sensitivity of DNA-Mediated Electron Transfer to the Intervening π -Stack: A Probe for the Integrity of the DNA Base Stack," <i>J. Am. Chem. Soc.</i> 119(21):5045-5046 (May. 1997).				
	C6	HERNE, T.M., et al., "Characterization of DNA Probes Immobilized on Gold Surfaces," <i>J. Am. Chem. Soc.</i> 119(38):8916-8920 (Sep. 1997).				
	C7	HOLMLIN, R.E., et al., "Charge transfer through the DNA base stack," <i>Angew. Chem. Int. Ed. Engl.</i> 36(24):2714-2730 (Jan. 1998).				
	C8	IHARA, T., et al., "Gene sensor using ferrocenyl oligonucleotide," <i>Chem. Commun.</i> 17:1609-1610 (1997).				
	C9	JENKINS, Y., et al., "A Sequence-Specific Molecular Light Switch: Tethering of an Oligonucleotide to a Dipyrrophenazine Complex of Ruthenium (II)" <i>J. Am. Chem. Soc.</i> 114(22):8736-8738 (Oct. 1992).				
	C10	KELLEY, S.O., et al., "Photoinduced Electron Transfer in Ethidium-Modified DNA Duplexes: Dependence on Distance and Base Stacking," <i>J. Am. Chem. Soc.</i> 119(41):9861-9870 (Oct. 1997).				
	C11	KORRI-YOUSOUFI, H., et al., "Toward Bioelectronics: Specific DNA Recognition Based on an Oligonucleotide-Functionalized Polypyrrole," <i>J. Am. Chem. Soc.</i> 119(31):7388-7389 (Aug. 1997).				
	C12	RACK, J.J., et al., "Spectroscopy and Electrochemistry of Ruthenium-Modified Nucleic Acids: Design of a Novel-Metal Binding Nucleoside," <i>J. Am. Chem. Soc.</i> 122(26):6287-6288 (Jul. 2000).				
	C13	ROJAS, M., et al., "Molecular recognition at the electrode-solution interface, design, self-assembly, and interfacial binding properties of a molecular sensor," <i>J. Am. Chem. Soc.</i> 117(21):5883-5884 (May. 1995).				


Examiner Signature	<i>Mike m</i>	Date Considered	3/30/2005
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	C14	SACHS, S., et al., "Rates of Interfacial electron transfer through conjugated spacers," <i>J. Am. Chem. Soc.</i> 119(43):10563-10564 (Oct. 1997).	<input checked="" type="checkbox"/>
	C15	SMALLEY, J., et al., "Kinetics of Electron Transfer through Ferrocene-Terminated Alanethiol Monolayers Gold," <i>J. Phys. Chem.</i> 99(35):13141-13149 (Aug. 1995).	<input checked="" type="checkbox"/>

Examiner Signature		Date Considered	3/30/2005
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